

CLAIMS

What is claimed is:

1. A spring anchor adapted to be fastened to a surface, the anchor comprising:  
an hourglass shaped solid body adapted to receive one closed loop end of a coil spring therearound, the solid body having a central axial bore therethrough, a maximum outer diameter, a waist having a diameter less than the outer diameter;  
a flexible disc fastened to a top portion of the body, the disc having an outer diameter greater than the outer diameter of the solid body, and  
a cap member fastening the flexible disc between the top of the solid body and a cap portion of the cap member, wherein the spring anchor outer diameter is sized to fit within the closed loop end of the coil spring and the flexible disc is sized larger than the closed loop, the flexible disc elastically deflecting to permit the closed loop to pass over the disc and onto the spring anchor, the flexible disc preventing inadvertent slippage of the closed loop of the spring off of the anchor.
2. The spring anchor according to claim 1 wherein the flexible disc is an elastomeric material.
3. The spring anchor according to claim 1 wherein the cap member is a threaded bolt passing through the solid body and through a central aperture in the flexible disc.
4. The spring anchor according to claim 1 wherein the flexible disc is a composite material having a fabric reinforcing layer and elastomer substrate layers sandwiching the reinforcing layer.
5. The spring anchor according to claim 1 further comprising a washer positioned over the flexible disc on the cap member.
6. The spring anchor according to claim 5 wherein the cap member is a bolt having a head and a threaded portion, the threaded portion passing through the washer, the flexible disc, and through the axial bore in the solid body, the head and the solid body sandwiching the washer and the flexible disc therebetween.
7. In an exercise apparatus having one or more springs fastened between a movable

member and a frame member, a spring anchor adapted to be fastened to one of the members, the anchor comprising:

an hourglass shaped solid body adapted to receive one closed loop end of a coil spring therearound, the solid body having a central axial bore therethrough, a maximum outer diameter, a waist having a diameter less than the outer diameter;

a flexible disc fastened to a top portion of the body, the disc having an outer diameter greater than the outer diameter of the solid body, and

a cap member fastening the flexible disc between the top of the solid body and a cap portion of the cap member, wherein the spring anchor outer diameter is sized to fit within the closed loop end of the coil spring and the flexible disc is sized larger than the closed loop, the flexible disc elastically deflecting to permit the closed loop to pass over the disc and onto the spring anchor, the flexible disc preventing inadvertent slippage of the closed loop of the spring off of the anchor.

8. The spring anchor according to claim 7 wherein the flexible disc is an elastomeric material.

9. The spring anchor according to claim 7 wherein the cap member is a threaded bolt passing through the solid body and through a central aperture in the flexible disc.

10. The spring anchor according to claim 7 wherein the flexible disc is a composite material having a fabric reinforcing layer and elastomer substrate layers sandwiching the reinforcing layer.

11. The spring anchor according to claim 7 further comprising a washer positioned over the flexible disc on the cap member.

12. The spring anchor according to claim 11 wherein the cap member is a bolt having a head and a threaded portion, the threaded portion passing through the washer, the flexible disc, and through the axial bore in the solid body into one of the movable member and the frame member, the head and the solid body sandwiching the washer and the flexible disc therebetween.

13. An exercise apparatus having a movable member and a frame member and a coil spring fastened therebetween and a spring anchor fastened to one of the members removably fastening one end of the spring to the spring anchor, wherein the spring anchor comprises:

an hourglass shaped solid body receiving one closed loop end of the coil spring therearound, the solid body having a central axial bore therethrough, a maximum outer diameter, a waist having a diameter less than the outer diameter;

a flexible disc fastened to a top portion of the body, the disc having an outer diameter greater than the outer diameter of the solid body, and

a cap member fastening the flexible disc between the top of the solid body and a cap portion of the cap member, wherein the spring anchor outer diameter is sized to fit within the closed loop end of the coil spring and the flexible disc is sized larger than the closed loop, the flexible disc elastically deflecting to permit the closed loop to pass over the disc and onto the spring anchor, the flexible disc preventing inadvertent slippage of the closed loop of the coil spring off of the anchor.

14. The apparatus according to claim 13 wherein the flexible disc is an elastomeric material.

15. The apparatus according to claim 13 wherein the cap member is a threaded bolt passing through the solid body and through a central aperture in the flexible disc into the one member.

16. The apparatus according to claim 13 wherein the flexible disc is a composite material having a fabric reinforcing layer and elastomeric substrate layers sandwiching the reinforcing layer.

17. The apparatus according to claim 13 further comprising a washer positioned over the flexible disc on the cap member.

18. The apparatus according to claim 17 wherein the cap member is a bolt having a head and a threaded portion, the threaded portion passing through the washer, the flexible disc, and through the axial bore in the solid body, the head and the solid body sandwiching the washer and the flexible disc therebetween.